

USAID Investments in Drinking Water Supply Projects and Related Activities in 2004

A Report to the U.S. House and Senate Appropriations Committees

FY 2004 Appropriations Act Conference Report States:

"The conference agreement includes Senate language that provides \$100,000,000 shall be made available for drinking water supply projects and related activities. The managers expect USAID to report no later than 90 days after enactment of this Act on funding and implementation of its water projects, including the number and location of wells drilled, and the cost per well."



Women and children gather at a community water supply in Mali to collect water for household use.



Through the Safe Drinking Water Alliance, USAID helps disseminate the use of low-cost solutions to improve the quality of existing household water used for drinking and cooking.

USAID Helps Alleviate the Global Water Crisis

Worldwide demand for water is steadily increasing as industrialization, agricultural use, urbanization, and a rising standard of living for the globe's continuously growing population drive water consumption ever higher. Slightly more than one-half of available freshwater supplies are currently used for human purposes, and world water demand doubles every 20 years.

Successful management of freshwater resources is a critical health issue. By 2025, more than 2.8 billion people – 35% of the world's projected population – will live in 48 countries facing water stress or water scarcity. More than 1.2 billion people (one in every four people in the developing world) currently lack access to a safe water supply, and two in five have no access to improved sanitation (connection to a public sewer or septic system, or access to a pour-flush latrine, simple pit latrine, or ventilated improved pit latrine). Insufficient water quantity, poor water quality, inadequate sanitation, and poor personal hygiene practices are directly responsible for the vast majority of cases of diarrheal disease, which kill over 2 million children each year. In addition, water resources management has an impact on insect vector populations, most notably mosquitoes. Malaria alone kills between 1 and 2.7 million people each year, with ninety percent of these deaths in sub-Saharan Africa, mainly among children. USAID investments reflect the urgent need to provide safe and affordable domestic water supply, its effective integration into overall water resources management, and the inclusion of sanitation and hygiene promotion to protect drinking water sources, the environment, and human health.

Preliminary estimates indicate that USAID will obligate for FY 2004 over \$764 million to a variety of water-related activities. This figure includes \$247 million in Iraq for all water activities from the Supplemental Appropriation for Defense and for the Reconstruction of Iraq and Afghanistan, and \$120 million in unspecified year appropriations resulting from a transfer agreement between USAID and the U.S. Department of State.

More than \$321 million of this total represents drinking water supply and sanitation-related activities aimed at protecting human health. This figure includes over \$264 million for water supply projects in 45 countries, and over \$57 million for sanitation and hygiene projects in 25 countries (Table 1). As defined by USAID, water supply and sanitation obligations include those activities that improve access to and availability of clean drinking water to



Drinking Water Supply and Sanitation

Table 1. Estimated FY 2004 USAID Drinking Water Supply and Sanitation Obligations by Country and Region
(Reported in Millions of USD)

Region	Country or Operating Unit	Drinking Water Supply	Sanitation	TOTAL
Africa	Burundi	0.231	0.231	0.462
	Democratic Republic of Congo		0.110	0.110
	Eritrea	1.377		1.377
	Ethiopia	0.671	0.200	0.871
	Ghana	0.570	0.491	1.061
	Kenya	0.300	0.200	0.500
	Madagascar	0.097	0.097	0.194
	Rwanda	0.300		0.300
	Senegal	0.225		0.225
	Somalia	0.322	0.411	0.733
	South Africa	1.548	0.400	1.948
	Sudan	2.347	0.782	3.129
	Tanzania		0.006	0.006
	Zambia	0.600		0.600
	Africa Regional Programs	1.000		1.000
	Africa Total	9.588	2.928	12.516
Asia & Near East	Afghanistan ^a	31.469	11.500	42.969
	India	1.670	0.120	1.790
	Indonesia	2.238	2.238	4.476
	Lebanon	2.000	2.000	4.000
	Pakistan	0.467		0.467
	Philippines	1.035		1.035
	Sri Lanka	0.223		0.223
	Thailand	0.223		0.223
		Asia & Near East Total^b	39.325	15.858
Egypt, Jordan, & West Bank/Gaza	Egypt	7.716	6.500	14.216
	Jordan	31.600		31.600
	West Bank/Gaza ^c	132.374		132.374
		Egypt, Jordan, & West Bank/Gaza Total	171.690	6.500
Europe & Eurasia	Armenia	1.314		1.314
	Croatia	1.000		1.000
	Georgia	1.500		1.500
	Kazakhstan	0.057		0.057
	Kosovo	0.850		0.850
	Kyrgyzstan	1.150		1.150
	Macedonia	0.200		0.200
	Moldova	0.500		0.500
	Montenegro	6.000	6.000	12.000
	Serbia	3.000	2.000	5.000
	Ukraine	0.526		0.526
	Uzbekistan	0.022		0.022
	Europe Regional Programs	0.450		0.450
	Europe & Eurasia Total	16.569	8.000	24.569

^aEstimate is not yet confirmed.

^bLess Egypt, Jordan, and West Bank/Gaza. Also excludes approximately \$185 million expected to be obligated in FY 2004 in Iraq for water supply and sanitation activities from the Supplemental Appropriation for Defense and for the Reconstruction of Iraq and Afghanistan

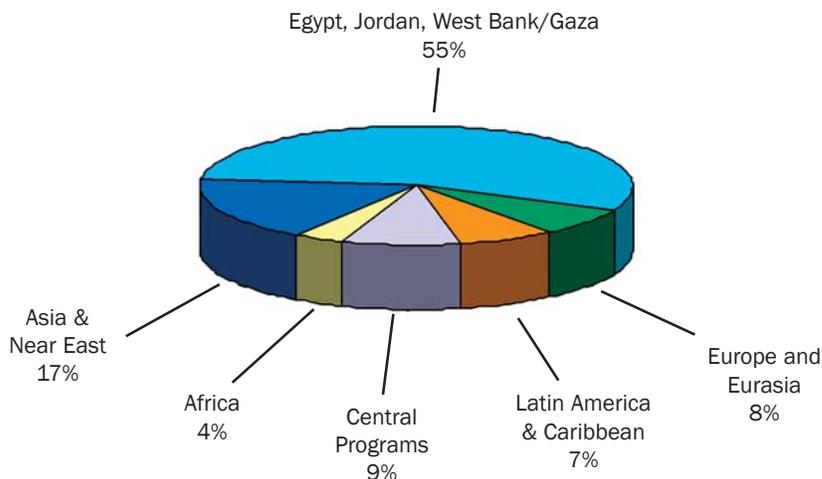
^cExcludes prior year carryover of \$14 million expected to be obligated in FY 2004 for water supply activities

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Table 1. Estimated FY 2004 USAID Drinking Water Supply and Sanitation Obligations by Country and Region
(Reported in Millions of USD)

Region	Country or Operating Unit	Drinking Water Supply	Sanitation	TOTAL
Latin America & Caribbean	Bolivia	1.089	2.141	3.230
	Colombia	2.813	2.063	4.876
	Dominican Republic	0.168		0.168
	Ecuador	4.612	4.006	8.618
	El Salvador	0.629	0.229	0.858
	Haiti	0.522	0.031	0.553
	Honduras	1.100		1.100
	Jamaica		0.200	0.200
	Nicaragua		0.428	0.428
	Peru	1.820	1.035	2.855
Latin America & Caribbean Total		12.753	10.133	22.886
Central Programs	Urban Programs	0.100		0.100
	Global Health Programs	1.167	0.600	1.767
	Foreign Disaster Assistance	13.299	13.299	26.598
	Central Programs Total	14.566	13.899	28.465
TOTAL — All Regions		\$ 264.491	\$ 57.318	\$ 321.809

Figure 1. FY 2004 USAID Drinking Water Supply and Sanitation Obligations by Region
(totaling over \$321 million)



Drinking Water Supply and Sanitation

rural, peri-urban and urban populations; reduce water contamination through provision of proper drainage and removal of human waste; ensure water source protection; and promote improved hygiene behaviors.¹

Regional Focus of USAID's Drinking Water Supply Projects and Related Activities

Over \$178 million of USAID's total investment in drinking water supply and sanitation activities takes place in the center of one of the most water-stressed regions of the world – Egypt, Jordan, and the West Bank/Gaza (Figure 1).

Because Egypt, Jordan and West Bank/Gaza have represented a disproportionately large percentage of USAID's total water supply obligations over the last few years, these areas have been disaggregated from the Asia & Near East Region for reporting purposes. Bureau or Operating Unit recipients with significant drinking water supply and sanitation funds include Asia and the Near East Region (less Egypt, Jordan and West Bank/Gaza) at over \$55 million, Central Programs and Operating Units at \$28 million, the Latin America & Caribbean Region at \$23 million, Europe and Eurasia at \$24 million, and Africa at \$12 million.

Well Drilling

Eight countries have reported data on well drilling activities during the first half of FY 2004 (Table 2). A total of 497 wells have been drilled since October 1, 2003 in Eritrea, Ethiopia, Ghana, Senegal, Jordan, Serbia, Paraguay, and Ecuador. The average cost per well is \$4,342, and includes boreholes, dug wells, developed springs, and improved technology traditional wells. The resulting number of wells completed by the end of FY 2004 will be higher than 497, which represents available data on mid-year progress to date. For example, an additional 1,700 wells are planned for development under a rapid delivery assistance project in Afghanistan prior to the end of FY 2004, at an average cost of \$900 per well. In many instances, additional wells have been drilled using leveraged partner funds and are not included in Table 2 as results of direct USAID funding. For example, approximately 46 wells in Ghana and Mali have been developed since the onset of FY 2004 through the USAID-supported West Africa Water Initiative.



Well drilling in Ghana, Mali, and Niger is an important entry point activity for improved integrated water resources management objectives of the West Africa Water Initiative.



A young girl makes a small payment to collect safe drinking water from a community water supply facility in Eritrea.

Drinking Water Supply and Sanitation Obligations: Illustrative Projects and Activities

Drinking water supply and sanitation projects specifically address the provision of clean and adequate supplies of drinking water to rural and urban communities, and the promotion of practices that protect these supplies from contamination by improper handling of domestic water supplies, household waste and inadequate sanitation. Representative project and activity descriptions:

- USAID is supporting the Safe Drinking Water Alliance (a Point-of-Use Household Water Treatment Initiative) with \$1.4 million to implement programs in Pakistan, Haiti, and one other country yet to be determined. USAID's financial contribution is leveraging substantial in-kind and financial contributions from Procter & Gamble (estimated at approximately \$3.5 million), as well as technical and program support resources from the other partners. The Alliance will test the acceptance of PuR, a water treatment product produced by Procter and Gamble, and other point-of-use technologies in conjunction with promotion of other hygiene practices, such as handwashing. In Pakistan, a commercial market model will be implemented to make use of the commercial sector's technologies, marketing expertise, and distribution methods. In Haiti, the Alliance will rely on a social model to overcome the economic and infrastructure restraints that limit commercial participation. An emergency relief model will be tested in one additional country to develop a point-of-use water treatment package that can be rapidly deployed in the event of an emergency that interrupts access to safe drinking water.
- USAID's Development Credit Authority (DCA) is currently examining the world market for private debt financing and is working closely with overseas missions in an effort to identify bankable projects and risk-sharing partners in the water supply

¹USAID plans to spend an additional \$38 million on the development of large scale wastewater treatment facilities in 20 countries, which is not included in this report on improved drinking water supply and related sanitation and hygiene interventions.

sector. To date in FY 2004, DCA has provided a partial guarantee expected to leverage \$35 million for improved municipal water supply in South Africa, at a cost of \$0.308 million. Another DCA program expected to leverage an additional \$10 million is under final development in the Philippines.

- In Jordan, USAID is supporting a \$31.6 million water supply improvement program during 2004. One component is the USAID-funded Water Efficiency and Public Information for Action project to support a nationwide social marketing program focused on practical ways to protect and conserve Jordan's scarce municipal water supply. Through this program, a significant amount of water and financial resources have been saved, knowledge and acceptance of water conservation measures have increased, policy has been strengthened, advocacy and constituency for policy have developed, and capacity of government has increased.
- The West Africa Water Initiative (WAWI) was launched in 2002 to maximize the impact of water-related investments by both private and public actors, targeting interventions on highly vulnerable rural and peri-urban populations in the developing world. In its initial phase, the alliance invests in small-scale potable water supply and sanitation activities in Ghana, Mali, and Niger, as the entry point for an integrated approach to water resources management. The range of activities that will be undertaken by all partners includes: well drilling and rehabilitation, hand and solar pump installation, alternative water source development, construction of latrines, household and school based sanitation, and hygiene education. USAID's investment commitment currently reaches about \$5 million, which will be spent over five years. The total amount leveraged from other partners is \$36 million over six years. Over 400,000 people will benefit from improved access to water supply and sanitation through the Initiative.
- USAID draws on its extensive relationships in the international water community to build linkages with other important global initiatives in clean drinking water and adequate sanitation, including presentation of interventions at the World Summit on Sustainable Development in Johannesburg in August 2002, the World Water Forum in Kyoto in March 2003, and the 12th Session of the Commission on Sustainable Development in New York in April 2004.



Improved water supply and sanitation enhance child survival by reducing the incidence of waterborne diseases.



Extreme water scarcity and increasing cost of supply are serious constraints to Jordan's economic growth. USAID helps Jordanians meet water needs for urban consumers, industry, agriculture, and tourism.



USAID's Development Credit Authority (DCA) uses partial guarantees to help mobilize local capital for investment in financially viable water delivery infrastructure. This couple shows a copy of their first water bill they have received since obtaining a household connection to a municipal water delivery system funded with a DCA partial guarantee.

Table 2. Available Data on Number of Wells Drilled to Date and Cost (in thousands of USD) per Well in FY 2004

Country	Number of Wells
Eritrea	38
Ethiopia	271
Ghana	95
Senegal	75
Jordan	5
Serbia	3
Paraguay	2
Ecuador	8
Total Number of Wells^d	497
Average Cost per Well	\$4,342

^dAn additional 1,700 wells are planned for development in Afghanistan over the next six months, at an average cost of \$900 per well.